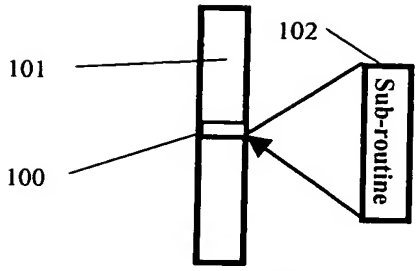

Fig1A

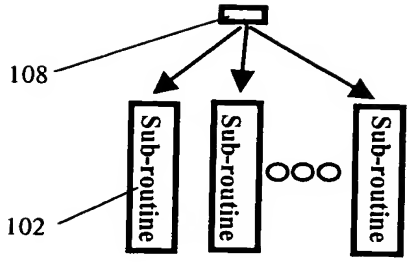

Fig1B

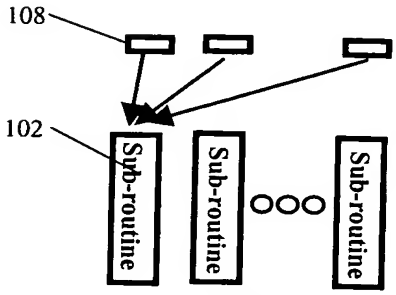

Fig1C

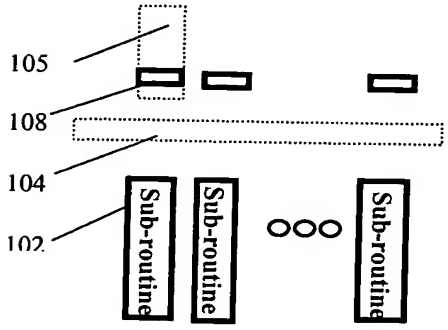

Fig1D

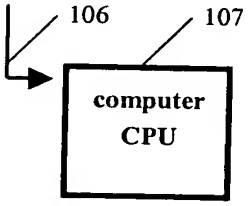

Fig1E

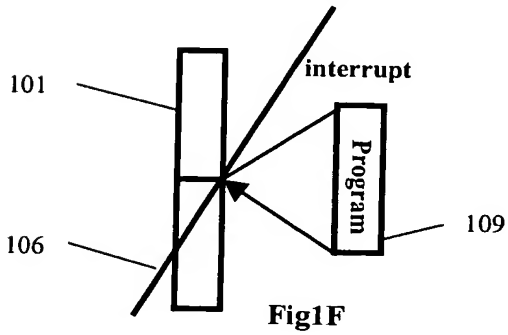

Fig1F

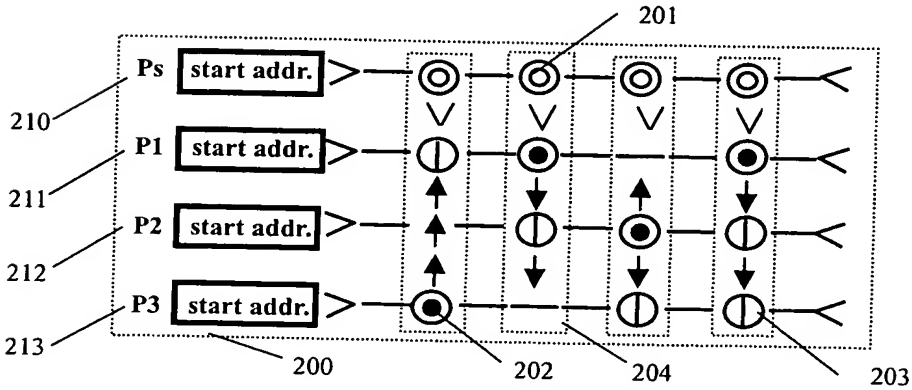

Fig 2A

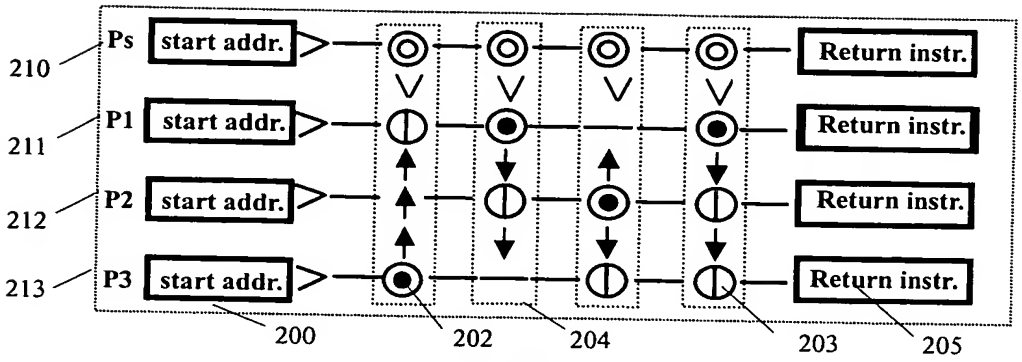

Fig 2B

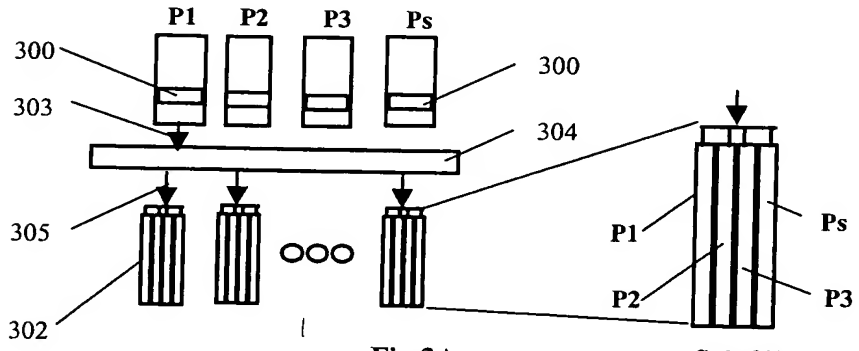

Fig 3A

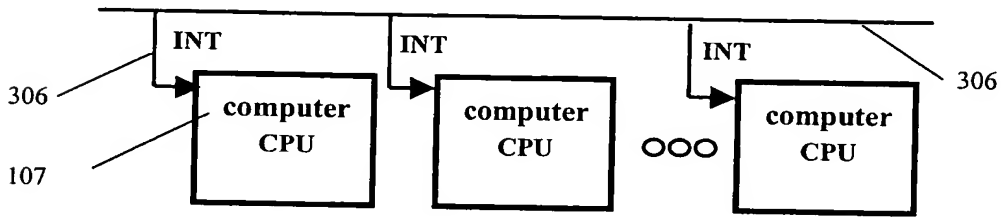

Fig 3B

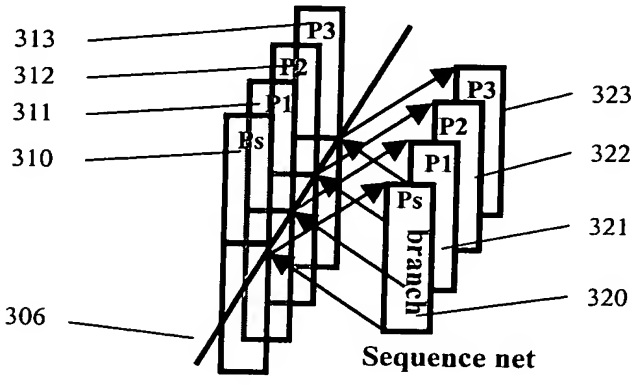

Fig 3C

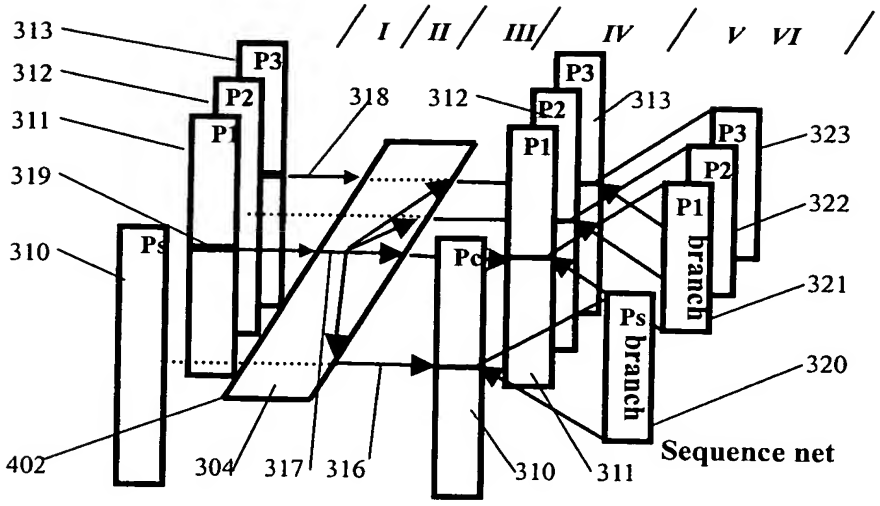

Fig 3D

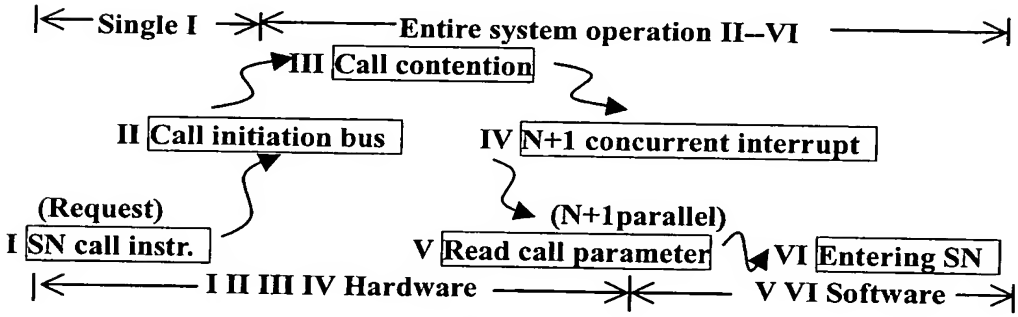

Fig.3E

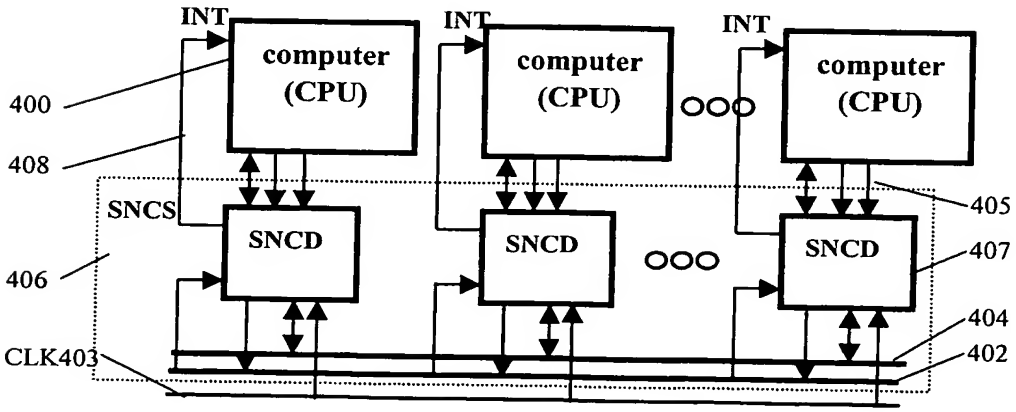

Fig.4A

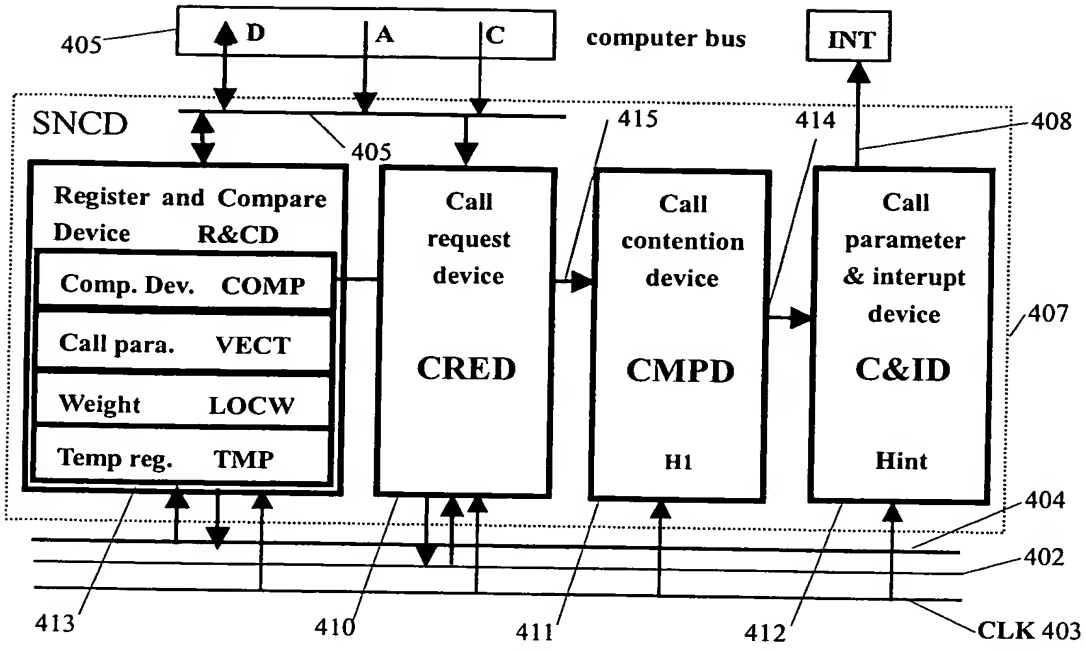
405
D
A
C
computer bus
INT
SNCD
405
415
414
408
Register and Compare Device R&CD
Comp. Dev. COMP
Call para. VECT
Weight LOCW
Temp reg. TMP
Call request device
CRED
Call contention device
CMPD
H1
Call parameter & interupt device
C&ID
Hint
407
404
402
413
410
411
412
CLK 403

Fig.4B

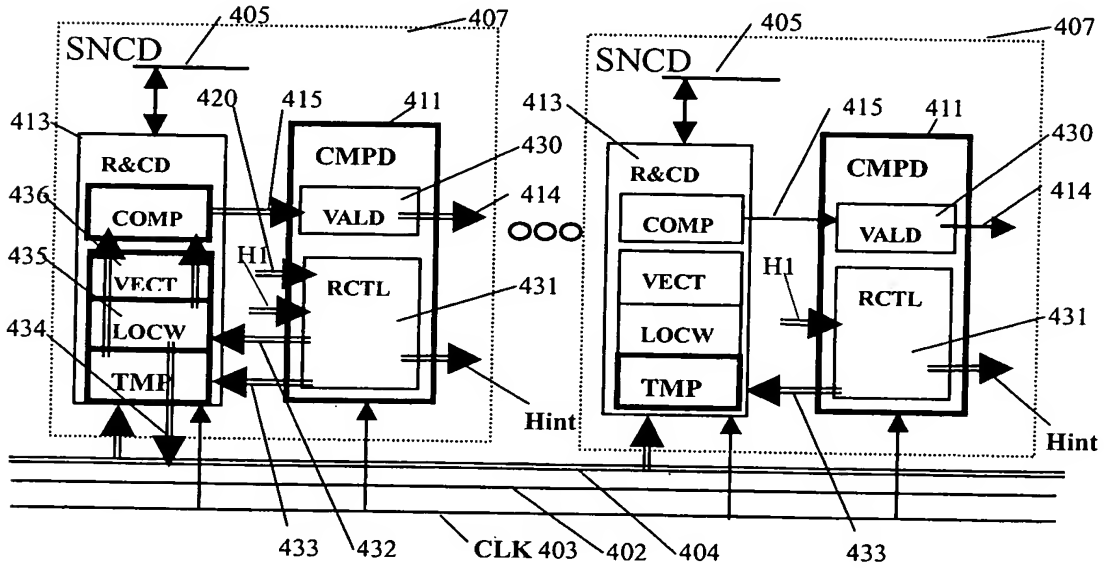
SNCD
405
407
420
415
411
413
R&CD
436
COMP
435
VECT
434
LOCW
TMP
H1
CMPD
VALD
RCTL
430
414
431
Hint
433
432
CLK 403
402
404
SNCD
405
407
413
415
411
R&CD
COMP
VECT
LOCW
TMP
H1
CMPD
VALD
RCTL
430
414
431
Hint
433

Fig.4E

In sequence net call, the operations of SNCDs at clock Hi

I	II		III		IV	
	H0		H1		Hint	
	1	0	1	0	1	0
SNCD receives sequence net call instruction It is the request machine	sending initiation level to bus 402	checking level from bus 402 for initiation of entire system	send weight of this machine to data bus	Read weight of entire system from data bus. Entering into temp. register, Compare with weight of this machine. HVBOR of temp. register is equal to weight of this machine, the call is valid.	Call of this SNCD is valid. Call parameter send to data bus.	Read data bus, enter in temp. register. Send interrupt level to computer connected with SNCD.
ditto	ditto	ditto	send weight of this machine to data bus	Read weight of entire system from data bus. Entering into temp. register, Compare with weight of this machine. HVBOR of temp. register is higher than weight of this machine, the call is invalid.	Call of this SNCD is invalid. Send 0000 to data bus.	ditto
Not request machine	no operation	ditto	send 0000 to data bus	Read weight of entire system from data bus, Entering into temp. register. No call request, no comparison.	Send 0000 to data bus.	ditto

Fig.4C

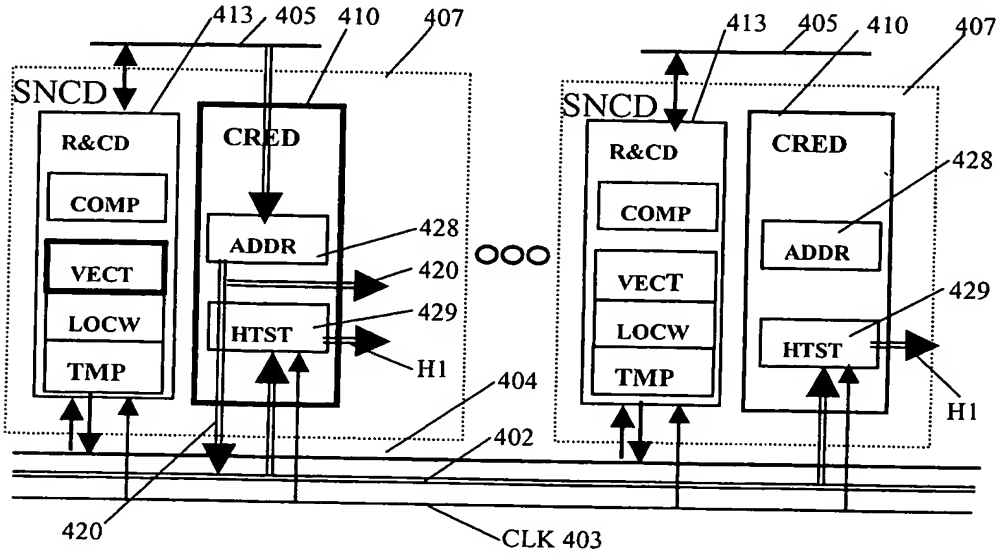

Fig.4D

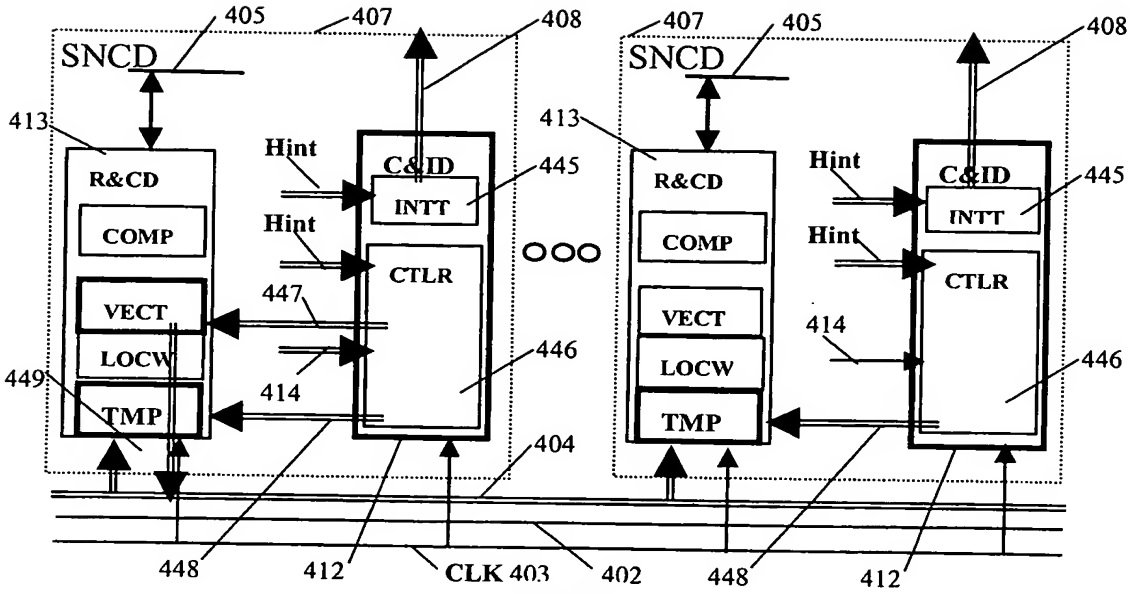
SNCD
405
407
408
413
R&CD
COMP
VECT
LOCW
TMP
449
Hint
Hint
C&ID
INTT
CTLR
445
447
414
446
404
448
412
CLK 403
402

Fig.4F

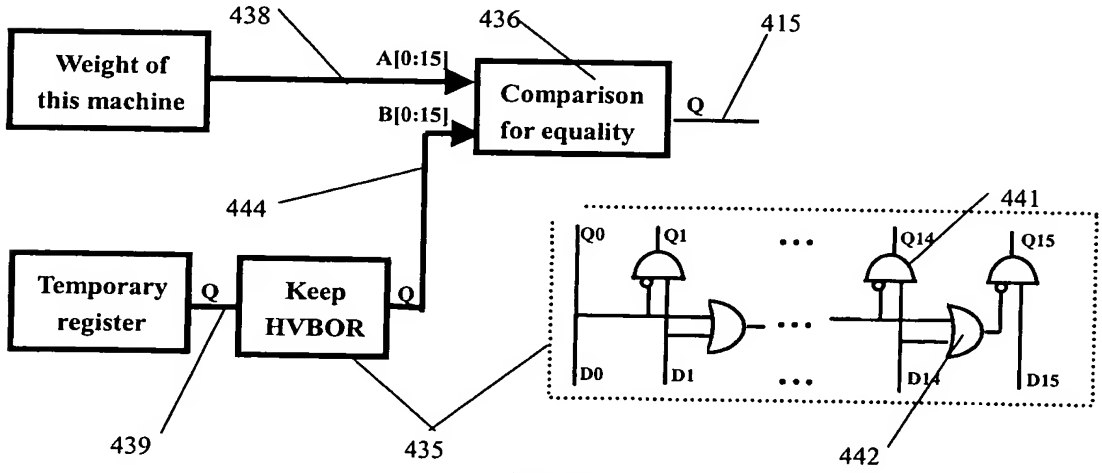
438
436
415
Weight of this machine
A[0:15]
B[0:15]
Comparison for equality
Q
444
441
Temporary register
Q
Keep HVBOR
Q
Q0
Q1
Q14
Q15
D0
D1
D14
D15
439
435
442

Fig.4G

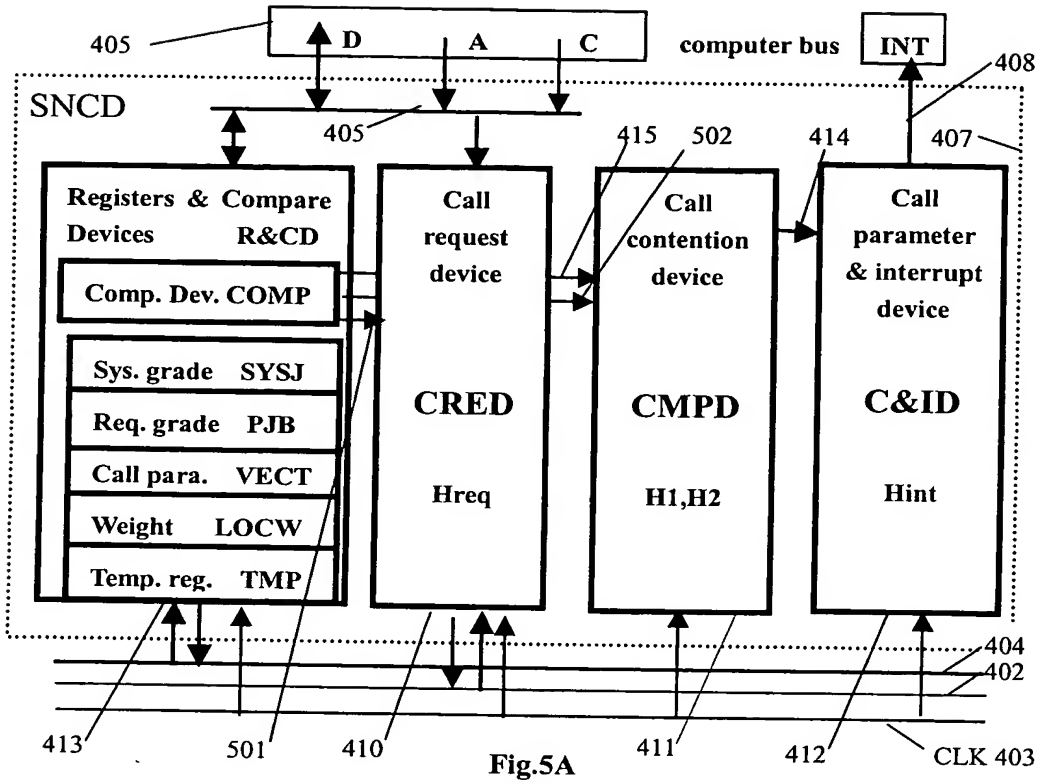

Fig.5A

In grade call of sequence net, the operations of SNCDs at clock H

I			II		III				IV	
	Hreq		H0		H1		H2		Hint	
	1	0	1	0	1	0	1	0	1	0
SNCD receives sequence net grade call instruction of request machine		Request grade greater than system grade, request valid	Initiation level to bus 4022	Check initiation level on 402, at leading edge	Send request grade to data bus	Read request grade of entire system from data bus. Send to temp register. Compare with request grade of this machine. The HVBOR are equal. Call valid.	Send weight of this machine to data bus. Write the HVBOR of temporary register into system grade register	Read weight of entire system from data bus. Send to temp. register. Compare with weight of this machine. The HVBOR are equal. Call valid.	SNCD valid. Send call parameter to data bus	Read data bus and send to temp. register. Send interrupt level to computer

ditto		Request grade greater than system grade, request valid	ditto	ditto	Send request grade to data bus	Read request call of entire system from data bus into temp. register. Compare with request grade of this machine. The HVBOR are equal. Call valid.	Send weight of this machine to data bus. Write the HVBOR of temp. register into system grade register	Read weight of entire system from data bus into temp. register. Compare with weight of machine. Weight of this machine is low. Call invalid	send 0000 to data bus	ditto
ditto		Request grade greater than system grade, request valid	ditto	ditto	Send request grade to data bus	Read call request of entire system from data bus into temp. register. Compare with request grade of this machine. The HVBOR are not equal. Call invalid.	Send 0000 to data bus. Write the HVBOR of temp. register into system grade register.	Read the weight of entire system into temp. register. Already in status of invalid call. No further comparsion to be made	ditto	ditto
ditto		Request grade smaller than system grade, request invalid	No operation	ditto	Send 0000 to data bus	Read request call of entire system from data bus. Send to temporary register.	ditto	ditto	ditto	ditto
SNCD is not request machine		No operation	ditto	ditto	ditto	ditto	ditto	ditto	ditto	ditto

Fig.5B

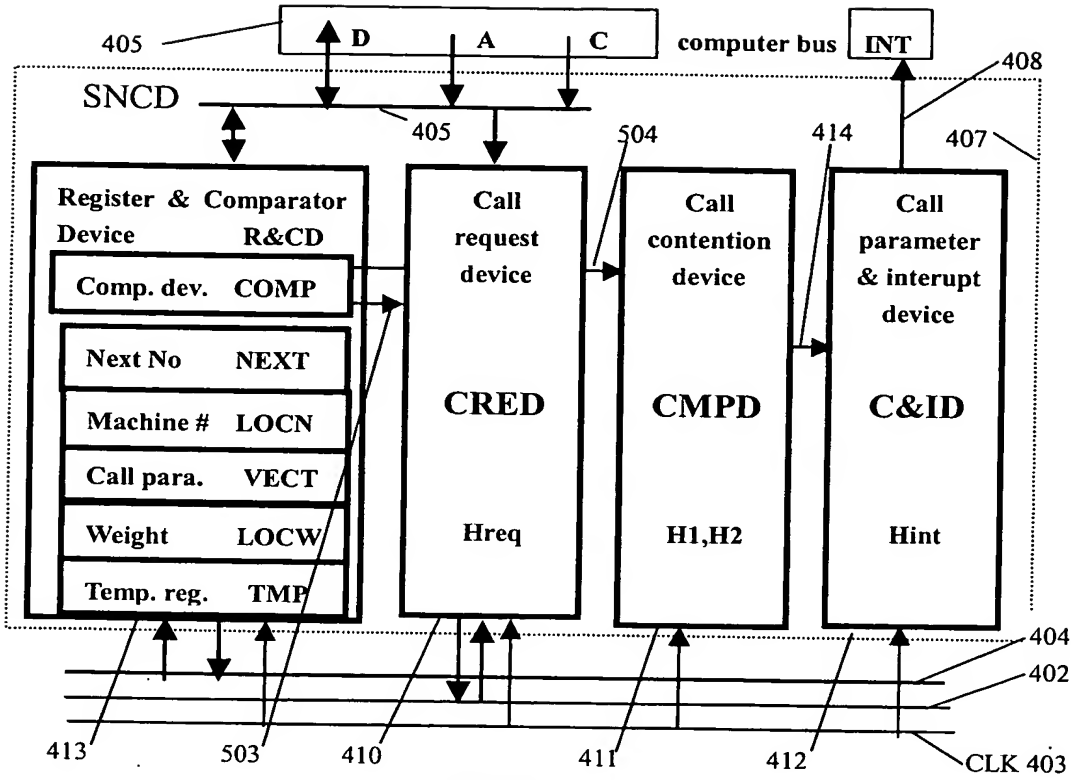
405
D
A
C
computer bus
INT
408
SNCD
405
504
414
407
Register & Comparator
Device R&CD
Comp. dev. COMP
Next No NEXT
Machine # LOCN
Call para. VECT
Weight LOCW
Temp. reg. TMP
Call request device
CRED
Hreq
Call contention device
CMPD
H1,H2
Call parameter & interupt device
C&ID
Hint
404
402
413
503
410
411
412
CLK 403

Fig.5C

In sequence call of sequence net, operations of SNCDs at clock H

I			II		III				IV	
	Hreq		H0		H1		H2		Hint	
	1	0	1	0	1	0	1	0	1	0
SNCD receive sequence net sequence call instruction, it is request machine		Number of machine equal to number of NEXT, Call valid	Send initiation level to bus 402	check for initiation level of entire system on 402	Sequence call, send 0000 to data bus	Read Sequence features of entire system from data bus, Send 0000 to temp. register. Temp. register are zero. Type of sequence call	No operation		SNCD valid Send call parameter to data bus	Read data bus. Send to temp. register. Send interrupt level to computer connected to SNCD.
SNCD receive sequence net sequence call instruction, it is request machine		Number of this machine not equal to NEXT, Call invalid	No operation	Ditto	No sequence call, send 0000 to data bus	ditto	No operation		SNCD invalid, send 0000 to data bus	Ditto
SNCD is not request machine		No operation	ditto	Ditto	Ditto	ditto	No operation		Ditto	Ditto

Fig.5D